

# BIOLOGYCURRENTS

2019 | THE QUEENS COLLEGE BIOLOGY ALUMNI NEWSLETTER | VOLUME 22, NO. 1

## Student Highlights 2019

We are pleased to report on what some of the biology department's students are doing and the special honors they've earned. The degree recipients section on pages 6 and 7 highlights those who received department and college honors for achieving excellent grade point averages. In this section, we highlight other college-wide graduation awards received and the award-winning research carried out by our graduates. We also report on honors and awards received by masters and doctoral students who are doing thesis research with biology faculty members, as well as other undergraduate and graduate students who are distinguishing themselves during their college career.

Our students at all levels work hard to advance their education and careers. The rigorous research and academic environment engendered by the department's faculty encourages their progress and successes. Your donations offer significant support for these activities. Thank you!

### BACHELOR OF ARTS

#### Class of 2019 graduation honors:

**GLORIA NUNEZ CRUZ** was a Queens College Transfer Honors Program (THP) award recipient. The THP offers scholarships and

academic support for highly motivated and creative prospective students who wish to complete their bachelor's degree at a world-class college that challenges them to do their best.

**MARK HANS** was awarded a Pre-Med Support Award which provides a scholarship of up to \$2,000 to help defray the costs associated with applying to medical school.

**AR (ARIELLA) KORNREICH** is this year's Laura & Arthur Colwin Prize winner. The Laura H. and Arthur L. Colwin Prize recognizes "excellence in undergraduate research" and "is awarded to a biology major who is not a pre-professional student." Ar also received the college's Molly Weinstein Memorial Prize, which is presented annually to two or three graduating seniors who have a "superior record of scholarship and intend to pursue a career in college teaching."

Ar did her award-winning research in the Lahti laboratory. Her honors undergraduate research involved documentation of what will be the first published evidence that female



**Ar (Ariella) Kornreich, Colwin Prize recipient, photographed doing field research on local finch populations.**

house finches sing. (Female bird song is thought to be rare in the temperate zone.) Ar also showed that female songs can be just as complex as male songs. This was an independent discovery of hers based on recordings made by the late Paul Munding. She is the first author of a manuscript on this subject currently in peer review, which is co-authored by doctoral student Mason Youngblood, as well as Munding and David Lahti. Ar is now writing a follow-up paper which is a comprehensive review of female songs in birds. Ar attends Fordham University where she is pursuing graduate studies.

**TEVIN LYNCH** received the Muriel & Philip Feigelson Award in recognition of his outstanding research carried out in the Dennehy laboratory and for his excellent academic record. He was also a recipient



**Tevin Lynch (with Dr. Mitchell Baker) receives the Feigelson Award at post-Commencement award ceremony.**

of the Queens College Transfer Honors Program award. Tevin intends to apply to the Graduate School of CUNY biology PhD program.



**Dr. Dennehy takes a lab group selfie during a sampling trip to Bear Mountain Park. What a team! Expect to see several of these students winning awards in the coming years.**

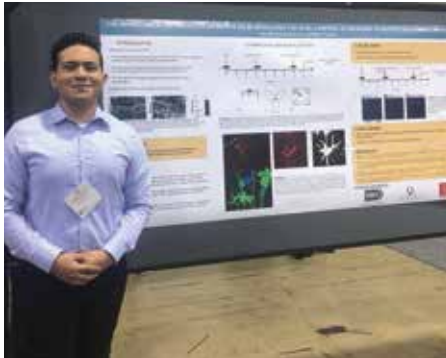
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# Student Highlights 2019

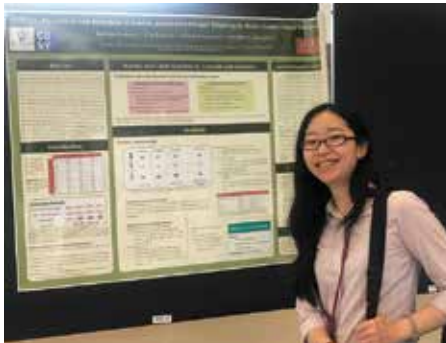
## GRADUATE DEGREES

**AIDA ABBASIAZAM** (Dennehy laboratory) was awarded a Master of Arts in biology. Her thesis title is “Host Growth Rate Affects Bacteriophage Lambda Burst Size.”

**SAMANTHA KILADA** (Waldman laboratory) was awarded the Master of Arts in biology. Her thesis was entitled “A Quantitative Look at Water Quality and its Effects on Biodiversity in Three Urban Rivers of Lower New York State.”



Michael Betancourt with his 2019 ABRCMS award-winning poster on the extracellular matrix and glial cell matrix.



Nanami Kubota with her Macaulay Honors College poster presentation of her research on phage adaptation to host codon usage.



Carmen Urgiles (right) and Elsa Rosario (Class of '18; MA biology in progress) enjoying a break after their poster presentation.

## Other notable student activities:

**HISHAM ALRUBAYE** (class of 2018) received the Raymond Taylor Scholars Endowment Fund Award, which is presented to a “worthy” graduating senior by the Queens College Scholarship Committee and is named in honor of the memory of former Queens College Provost Raymond Taylor. Hasham is pursuing graduate studies in the University of Pittsburgh’s department of biological sciences.

**MICHAEL BETANCOURT**, a National Institutes of Health (NIH) Bridges student working in Dr. Tajerian’s research laboratory, won the Best Poster Presentation Award in the Neuroscience category at the Annual Biomedical Research Conference for Minority Students (ABRCMS) meeting this year.

**NANAMI KUBOTA** received a travel award from the American Society of Virology to attend their 38th annual meeting. After graduating this coming spring, Nanami is planning to pursue a doctoral degree.

**CARMEN URGILES** (class of 2017) was awarded an American Society for Microbiology (ASM) Research Capstone Program Fellowship. “The ASM Research Capstone Fellowship, a program dedicated to professional development, awards underrepresented minority students up to \$2,000 to attend and present at the ASM Microbe Academy for Professional Development (MAPD) and the ASM Microbe Meeting.” Carmen is continuing her research in Dr. Dennehy’s laboratory and plans to enter a doctoral degree program.

**MASON YOUNGBLOOD**, a doctoral student in the Lahti laboratory, was the sole author of two articles in respected peer-reviewed journals.

- Youngblood, M. (2019). Conformity bias in the cultural transmission of music sampling traditions. *Royal Society Open Science* 6:191149 (8 pp.).
- Youngblood, M. (2019). Cultural transmission modes of music sampling traditions remain stable despite delocalization in the digital age. *PLoS ONE*



Mason Youngblood, a doctoral student in the Graduate School of CUNY’s PhD program in biology, is completing his thesis research with David Lahti.

14(2):e0211860 (12 pp.).

In addition, Mason published an article in a non-peer-reviewed online magazine:

- Youngblood, M. (2019). A study of collaborative sampling across international networks. *Red Bull Music Academy Daily*, 21 June.

Mason has also received significant media attention, including blog posts, interviews, and science news coverage. View them here: <https://masonyoungblood.com/media>

**BOBBY HABIG**, a National Science Foundation postdoctoral student in the Lahti lab, authored two journal articles describing work done with prior researcher colleagues.

- Habig, B., D. A. W. A. M. Jansen, M. Y. Akinyi, L. R. Gesquiere, S. C. Alberts, and E. A. Archie. (2019). Multi-scale predictors of parasite risk in wild male savanna baboons (*Papio cynocephalus*). *Behavioral Ecology and Sociobiology*. 73: doi:10.1007/s00265-019-2748-y. 16 pp.
- Akinyi, M. Y., D. A. W. A. M. Jansen, B. Habig, L. R. Gesquiere, S. C. Alberts, and E. A. Archie. (2019). Costs and drivers of helminth parasite infection in wild female baboons. *Journal of Animal Ecology* 88: doi: 10.1111/1365-2656.12994. 15 pp.



Bobby Habig, postdoctoral researcher, in David Lahti’s group.

## FACULTY NOTES 2019

(Student contributions: P = post-doc, D = doctoral, M = master's, U = undergraduate, H = high school)

**JOHN DENNEHY** hosted the Virus Ecology and Evolution Research Symposium at the Advanced Science Research Center of CUNY, which was attended by about 70 people.



**ANDREW GRELLER** (professor emeritus) gave an invited talk entitled “Great Ferns I Have Known: An Exploration of Their World” at the Long Island Natural History Conference at Brookhaven National



Laboratory on March 23, 2019.

He submitted an abstract, “Bioclimatology of Evergreen Sclerophyll Woodland,” to the Botany 2019 Conference held in Tucson, AZ in July. He also wrote a non-peer reviewed article for the Long Island Botanical Society Newsletter discussing “Comparisons of Three *Carya* (Hickory) Species from Long Island.”

Dr. Greller presented a poster on his work with co-authors Cesar Castillo<sup>M</sup>, Michael Goudket, and Marie George<sup>P</sup> on “Three Fossil Fruits, New to the Magothy Formation (Upper Cretaceous) of Long Island” that appeared in the Long Island Botanical Society newsletter.

In June, he served as co-leader (with Virginia Dankel) of a field trip to Kings Point Park that was conducted for the Parks Department of Great Neck, NY.

Greller has become known for his natural history photography, which appeared in three venues this year. His work appeared in the photographic exhibit “Waterfowl of Long Island Ponds and Bays” at the Brentwood Public Library on Long Island. His photo of a northern flicker appeared in *The Heron* (the newsletter of the Four Harbors Audubon Society, Setauket, New York). His photo of a *Rosa virginiana* (Virginia rose) appeared in the Spring 2019 edition

of the Delaware Nature Society Native Plant Sale Catalog.

Finally, Greller sponsored the Andrew M. Greller/Torrey Botanical Society Annual Award for Graduate Student Research on Conservation Botany and Ecology in the New York City Metropolitan Area, which he has sponsored since 2011.

**NATHALIA HOLTZMAN** attended three conferences where she presented work carried out with her students. At the Mid-Atlantic Regional Zebrafish conference, she presented



“Understanding how PCB toxins cause heart defects early in fish development,” co-authored with Corinna Singleman<sup>P</sup>. Dr. Holtzman and co-authors Singleman<sup>P</sup>, Alison Zimmerman<sup>U</sup>, Elise Harrison<sup>H</sup>, Nirmal Roy, and Isaac Wirgin attended the Northeast Society for Developmental Biology Conference and presented their work “Toxic effects of PCB congeners and aroclors on zebrafish growth and development.” With undergraduate co-authors Daniel J. Yakubov<sup>U</sup>, Joshua S. Barnes<sup>U</sup>, Cynthia Kim<sup>U</sup>, and Marc Calidonio<sup>U</sup>, Holtzman presented their work on the “Impact of biology peer mentors on student success in general biology courses” at the NYC SciTech Conference.

**DAVID LAHTI** was invited to speak at Oxford University and also took part in three invited debates: at Stevens Institute of Technology (with John Horgan), at Columbia University (with Philip Kitcher), and at Harvard University (with Andrew Berry).



Dr. Lahti authored three articles in his professional field that were published in non-peer reviewed venues. His

article on “Tracking cultural evolution in house finch song” appeared in American Ornithological Society (AOS) news. He was invited to place a guest post on the *Scientific American* blog, Cross Check, entitled “Be Careful with Occam’s Razor, You Might Cut Yourself” (<https://bit.ly/2RAAyDu>). Lahti was a co-author for “Obituary: The Nine Lives of Richard D. Alexander” that appeared in *Evolution & Human Behavior*. Lahti was on sabbatical leave in 2019.

**ALICIA MELÉNDEZ** was a member of the 22nd International *C. elegans* Conference Planning Committee in June 2019 and served as chair of the Molecular, Cellular, and Developmental Biology Subprogram Advisory Committee.



Dr. Meléndez gave a seminar at Bar Ilan University, Israel in March on “Autophagy in Stem Cell Development.” Meléndez, her student Kaitlin Kosinski<sup>P</sup>, and Judith Yanowitz presented posters on “Autophagy in Meiotic Fidelity” at two conferences: the 18th International Worm Meeting, held at UCLA in June, and at the American Society of Cell Biology Meeting in Washington, D.C. in December.

Meléndez had two active grants in 2019. Her National Institutes of Health (NIH) grant entitled, “Role of autophagy and retromer genes in GLP-1/Notch signaling” explores the regulation of autophagy, germline proliferation, and longevity by the TOR signaling pathway. The second grant, with Israeli investigator Sivan Henis-Korenblit of Bar Ilan University, is entitled “A novel autophagy checkpoint.” The project combines the expertise of the Israeli lab in the field of proteostasis with Meléndez’s expertise in autophagy to investigate the mechanisms for compensatory response following autophagy dysfunction.

## FACULTY NOTES 2019

**CORINNE MICHELS** (distinguished professor emerita) continues to devote herself to the advancement of The Science Museum of Long Island (smli.org), a nonprofit children's science education center located in Manhasset, NY. Dr. Michels is a member of the Board of Trustees and heads their grant-writing effort to raise funds to expand program offerings and maintain/restore the historic facility. To support this, she authored a book, *The Story of The Science Museum of Long Island*, that tells about the museum's founding, the Leeds Pond Preserve facility where the museum is housed, and the museum's hands-on approach to teaching science to children.

Dr. Michels is also a scientific advisor to her husband, Dr. Harold T. Michels, who is continuing his effort to expand the use of copper alloy surfaces to reduce the incidence of dangerous antibiotic-resistant bacterial infections in hospitals, nursing homes, schools, and other public places. For more information on the Antimicrobial Copper Action Network, check out H.T. Michels' website at [amcopper.com](http://amcopper.com).

**ULDIS ROZE** (professor emeritus) presented



a talk, "The Porcupines of Lexington," to the people of Lexington, NY on October 19, 2019. Lexington is the Catskills site of his long-term study of a population of North

American porcupines.

**CATHY SAVAGE-DUNN** continues as



Executive Officer of the doctoral program in Biology at the Graduate School of CUNY. Despite the workload, she maintains an active research program at

Queens College. She submitted two preprints to bioRxiv, a free online archive and distribution service for unpublished

preprints in the life sciences. It is operated by Cold Spring Harbor Laboratory. By posting preprints on bioRxiv, authors are able to make their findings immediately available to the scientific community and receive feedback on draft manuscripts before they are submitted to journals. We can expect these articles to appear in the peer-reviewed journal next year:

Madaan, U.<sup>P\*</sup>, L. Faure<sup>P\*</sup>, A. Chowdhury<sup>M</sup>, S. Ahmed, E.J. Ciccarelli<sup>P</sup>, T.L. Gumienny and **C. Savage-Dunn**. 2019. Feedback regulation of BMP signaling by *C. elegans* cuticle collagens. \*authors contributed equally.

Clark, J.F.<sup>P</sup>, E.J. Ciccarelli<sup>P</sup>, G. Ranapura<sup>U</sup>, M.S. Hasan, A. Meléndez and **C. Savage-Dunn**. 2019. Mechanism of Interaction of BMP and Insulin Signaling in *C. elegans* Development and Homeostasis.

Dr. Savage-Dunn received a research grant from the NIH in 2019 entitled, "Regulation of metabolism by *C. elegans* DBL-1/BMP signaling." She also received a Texas Woman's University Chancellor's Research Fellow Mentor to mentor the research of Tina Gumienny.

**JOHN WALDMAN** enjoyed the rare honor of co-authoring (for the fifth time) an Op-Ed piece in *The New York Times* titled "The Wrong Mine for the Wrong Place" on May 7, 2019 with Paul Greenberg, Mark Kurlansky, and Carl Safina.



Dr. Waldman took part in 12 workshops and presentations in 2019, which are listed below.

■ Moderator, Plenary Session. Joint meeting of the New York Chapter and the Northeastern Division of the American Fisheries Society, Poughkeepsie, NY, February 6th.

■ Assessing the Effects of Storm Barriers on the Hudson River Estuary. Project Scoping Session. Workshop Participant. Center for the

Urban River at Beczak. Yonkers, NY, March 25.

■ Atlantic Rivers: Migratory Fish, Dams, Energy Production and Thoreau, University of Maine, Annual Machias Roque Island Lecture, March 28.

■ Running Silver: Restoring Atlantic Rivers and Their Great Fish Migrations, Columbia University, March 5.

■ Running Silver: Restoring Atlantic Rivers and Their Great Fish Migrations, NYU, April 11.

■ Migratory Fish, Dams, and Energy Production in Atlantic Rivers: Seeking Novel Solutions for a Conservation Conundrum. School of Marine and Atmospheric Sciences, Stony Brook University, May 10.

■ Reconnecting the Hudson and Other Atlantic Rivers: A Focus on the Fishes. Hudson River Watershed Alliance Workshop, Staatsburg, NY, August 22.

■ The Hudson River Environment in Eight Organisms, American Chinese Environmental Association, Queens, NY, August 23.

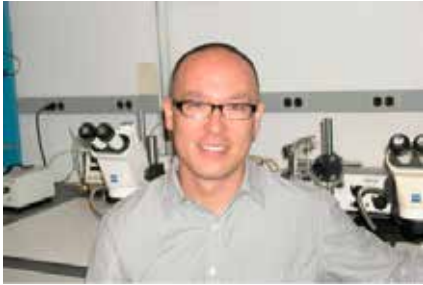
■ Running Silver: Restoring Atlantic Rivers and Their Great Fish Migrations, Trout Unlimited, Long Island Chapter, Hauppauge, NY, September 17.

■ The Biota of the Hudson River and the History of New York Harbor. Guest lecture, New York University, October 3.

■ External Expert for Hudson River PCBs and Fisheries Workshop, U.S. Environmental Protection Agency, Edison, NJ, November 14.

■ Reconnecting the Hudson Watershed and Other Atlantic Rivers, Hudson River Science Team, New York, NY, December 5.

*Continues on next page.*



**DANIEL WEINSTEIN** was promoted to the rank of professor in spring 2019. He has been serving as interim dean in the Division of Math and Natural Sciences since the fall 2019 semester.

Despite the administrative workload, he has maintained his NIH-supported research program in vertebrate embryology. His lab is funded by an NIH grant entitled "Transcriptional regulation of pluripotency in the early vertebrate embryo."

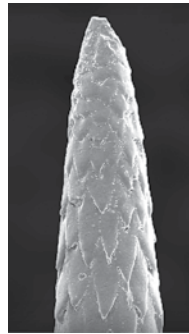
Weinstein served as guest editor of the special September issue of *Genes* (ISSN 2073-4425) on "Transcriptional Regulation of Early Embryogenesis."

He also presented an invited seminar on "Transcriptional restriction of cell fate in the early vertebrate embryo" at the Department of Biological Sciences Seminar Series at St. John's University.

Dr. Weinstein and his students, Shoshana Reich<sup>D</sup>; Peter Kayastha<sup>U</sup>; and Sushma Teegala<sup>D</sup>, gave a poster presentation at the Society for Developmental Biology 78th Annual Meeting in Boston, MA, in July. The title was, "Tbx2 mediates dorsal patterning and germ layer suppression through inhibition of BMP and Activin/Nodal signaling."

**PROFESSOR EMERITUS ULDIS ROZE'S**

work on porcupines was featured in an episode of the PBS program *Deep Look*.



High magnification photo of a porcupine quill tip.

The episode highlights the sharp business end of a quill, which explains why porcupine quills are being considered for surgical staple design. Quills are extremely difficult and painful to remove because they are covered in scale-like barbs that face backwards away from the quill tip. Moreover,

as previously described in the literature by Dr. Roze, porcupine quills are covered with a grease made up of a mixture of free and esterified fatty acids. The free fatty acids kill gram-positive bacteria, offering protection to the porcupines who often quill themselves while foraging in the treacherous environments of tree canopies.

<https://www.npr.org/sections/health-shots/2019/04/09/711050307/porcupine-barbs-for-better-wound-healing>

**PROFESSOR JOHN WALDMAN** was quoted in a *National Geographic* article on Atlantic sturgeon in the Hudson River. Researchers from the University of Delaware spotted a 14-foot sturgeon in a deep section of the river near Cold Spring, NY. Waldman commented, "This makes me think we often don't really know that much about the status of sturgeon in any river." He believes that the biggest sturgeons are big for a reason. "They're almost totally cryptic and elusive, and this is deep and murky water."

<https://www.nationalgeographic.com/environment/2019/03/14-foot-atlantic-sturgeon-fish-hudson-river-endangered-species/>



George Jackman, PhD, a Riverkeeper habitat restoration manager, checking on the health of one of the Hudson River tributaries.

Waldman and his former doctoral student **George Jackman** appeared in a short documentary, *Undamming the Hudson River*, about the environmental organization Riverkeeper and its efforts to restore natural riparian habitat.

<https://www.youtube.com/watch?v=Sg2wxsYtzOs>



Photo taken from *Undamming the Hudson River* showing a dam on a Hudson River tributary.

The video is a visually beautiful presentation arguing the case for removing the dilapidated non-functional dams that disrupt the free flow of half of the 67 Hudson River tributaries. The goal is to restore the natural migration patterns of fish, such as herring and sturgeon, allowing them to return to their ancient spawning sites. Most of these dams were originally constructed to support small industry. These industries are long gone, but the dams are not. The result has been a dramatic decrease in the fish populations whose abundance had astonished early colonists exploring the Hudson and other East Coast rivers.

## BIOLOGY GRADUATION HONOREES

**Donald E. Lancefield Award**—Mark Hans, Yehuda Herman, Saima Patel

**Laura H. and Arthur L. Colwin Prize**—Ariella Kornreich

**Charles Darwin Prize**—Adam Doniger

**Muriel and Philip Feigelson Award**—Tevin Lynch

The criteria for the department's graduation prizes and awards are presented here so that you can fully appreciate the excellence recognized by these awards.

- the Donald E. Lancefield Award for excellence in biology is awarded to the biology major with the highest grade-point average;
- the Darwin Prize goes to the biology major with the second-highest grade-point average who has demonstrated an interest in research;
- the Laura H. and Arthur L. Colwin Prize for excellence in undergraduate research is awarded to a biology major who is not a pre-professional student;
- the Muriel & Philip Feigelson Award goes to a graduating senior majoring in biology who has done the best undergraduate research and has also demonstrated outstanding academic achievement.

## BACHELOR'S DEGREE HONORS

**HH:** with High Honors in Biology

**H:** with Honors in Biology

**HMNS:** Honors in Math & Natural Sciences Program member

*Summa Cum Laude* (3.9 GPA)

*Magna Cum Laude* (3.75 GPA)

*Cum Laude* (3.5 GPA)

**ΦBK:** Phi Beta Kappa, the national honor society

\*\* College-wide awards detailed in *Student Highlights* on page 1.

## BACHELOR'S DEGREE RECIPIENTS

Soha Aboushady

Alia Ahmed – HH

Bushra Ahmed – H, *Cum Laude*

Katherine Alegre

Hisham Alrubaye – H, HMNS

Moisey Badalov

Sadia Badhom

Misha Baig

Kevin Balkaran

Allyson Boubert

Lauren Braithwaite

Benjamin Bravo

Terrilyn Britton

Ayanna Brown – HH, *Cum Laude*

Abraham Budhu

Syeda Bukhari

Dondre Carney

Yu Chang

Wen-Chi Chaung – H

Yanzhen Chen

Richa Choudhary

Jessica Cimafranca

Michael Corsillo

Farah Crawford

Danisha Debie

German Diagama

## GRADUATION AWARD HONOREES & DEGREE RECIPIENTS 2018–2019

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Andres Diaz – H	Tevin Lynch – HH, HMNS, <i>Summa Cum Laude</i>
Adam Doniger – HH, HMNS	Ashley Manassero
Joshua Echezabal	Ramsey Marte – HH, <i>Summa Cum Laude</i>
Nausheen Fathima	Yaxkyn Mejia
Pincher Fiber	Hina Mir
Abigail Fuentes	Melissa Mohamed
Alexis Gaeta	Angelo Mula
Patty Georgas	Abigail Murdakhayeva – H
Zarifa Ghafoor	Shevin Narine
Mary Pat Gibble – H	Ritika Nath
Benjamin Gorlin – H, <i>Cum Laude</i>	Alyssa Neal
Angelo Grapsas	Christopher Nguyen
Karim Gulzar	Gloria Nunez Cruz - HMNS
Mark Hans – HH, <i>Summa Cum Laude</i>	Melissa Ortega
Maria Hayee	Mateusz Ozimek
Yehuda Herman – HH, <i>Summa Cum Laude</i>	Saima Patel – HH, <i>Summa Cum Laude</i>
Eylin Hincapie	Michelle Pedreros
Justin Howard	Joanhy Ramirez
Anisha Jadav	Edward Reid – H
Nataly Jara	Kimberly Rocca
Bruneskidvi Jean-Philippe-Morisset – H	David Rodriguez
Amanpreet Kaur	Jose Rojas
Gurpreet Kaur	Jeanpaul Salinas
Hye In Kim – H, <i>Cum Laude</i>	Julia Scott – H, <i>Magna Cum Laude</i>
Justine Kinsky – H	Anum Sheikh
Steffi Kishna	Sara Shenan – H
Ariella Kornreich – HH, HMNS, ΦBK, <i>Summa Cum Laude</i>	Vikram Singh
Panayiotis Koumas – HH, HMNS, <i>Magna Cum Laude</i>	Lisa Sorto
Deepika Kumari – HH	Taylor Stanton – H
Joanne Lee	Rebecca Stevens – H
Jessica Lelonek – HH, ΦBK, <i>Cum Laude</i>	Zayna Syed
Yifei Li – H	Jessica Truong – HH, <i>Magna Cum Laude</i>
Yexi Liang	Patricia Umana – HH
Jiali Lin – H	Thomas Varghese
Lena Liu	Kris Villalba
Sydney Lowry – H, <i>Cum Laude</i>	Jaskaran Virk
	Julisa Woode
	Nabia Zaidi

### MASTER'S DEGREE RECIPIENTS

Aida Abbasia Zam  
Samantha Kilada  
Joselyn Landazuri Vinueza  
Maria Roe  
Christa Sankar

## FACULTY SCHOLARSHIP 2019

D = Doctoral student, M = Master's student, U = Undergraduate student, 2BA = second BA student, P = postdoctoral student

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### BOOK CHAPTERS, REVIEW ARTICLES

Henis-Korenblit, S. and A. Meléndez, 2019. Methods to determine the role of autophagy proteins in *C. elegans* aging. In: *Autophagy. Methods in Molecular Biology* 1880. Ktistakis N., Florey O. (Editors), Humana Press, New York, NY. ([https://doi.org/10.1007/978-1-4939-8873-0\\_37](https://doi.org/10.1007/978-1-4939-8873-0_37))

Savage-Dunn, C., R.J. Gleason, J. Liu, and R.W. Padgett. 2019. Mutagenesis and imaging studies of BMP signaling mechanisms in *C. elegans*. *Methods in Molecular Biology* 1891:51-73.

Sharma, S., J. Waldman, B. Fekete, and S. Afshari, 2019. Status and trends of American hydropower. *Renewable & Sustainable Energy Reviews* 101:112-122.

Cotroneo<sup>M</sup>, C. and J. Waldman, 2019. Submersed aquatic vegetation in a Hudson River watershed: The Great Swamp of New York. Chapter III. In: *Final Reports of the Tibor T. Polgar Fellowship Program*, 2016. S.H. Fernald, D.J. Yozzo, and H. Andreyko (Editors). Pp. 235. ([https://www.hudsonriver.org/wp-content/uploads/2019/03/Reports\\_of\\_the\\_Tibor\\_T\\_Polgar\\_Fellowship\\_Program\\_2016.pdf](https://www.hudsonriver.org/wp-content/uploads/2019/03/Reports_of_the_Tibor_T_Polgar_Fellowship_Program_2016.pdf))

Reich,<sup>D</sup> S. and D.C. Weinstein, 2019. Repression of inappropriate gene expression in the vertebrate embryonic ectoderm. *Genes* 10(11): 895; <https://doi.org/10.3390/genes10110895>.

### RESEARCH ARTICLES (PEER-REVIEWED)

Baltrus, D.A., C.A. Cuomo, J.J. Dennehy, J.C. Dunning-Hotopp, J.A. Maresca, I.L.G. Newton, D. Rasko, A. Rokas, S. Roux, and J.E. Stajich, 2019. Future-proofing your MRA genome assembly for reproducibility and clarity. *Microbiology Resource Announcements*: e00954-19.

Habig, B.<sup>2BA</sup>, P, K. Khan<sup>U,M</sup>, and D. C. Lahti, 2019. Behavioural analysis of village weavers *Ploceus cucullatus* in an Ethiopian breeding colony during early incubation: 1. Females. *Ostrich: Journal of African Ornithology* 90: 223-231.

Khan, K.<sup>U,M</sup>, Habig, B.<sup>2BA</sup>, P, and D. C. Lahti, 2019. Behavioural analysis of village weavers *Ploceus cucullatus* in an Ethiopian breeding colony during early incubation: 2. Males. *Ostrich: Journal of African Ornithology* 90: 233-239.

Ju, C.<sup>D</sup>, F. C. Geller<sup>P</sup>, P.C. Munding, and D. C. Lahti, 2019. Four decades of cultural evolution in house finch songs. *Auk: Ornithological Advances* 136:1-18.

Chapman, D.M., G.A.F. Gine, and U. Roze, 2019. Microscopy and development of a remarkable pitted quill from the thin-spined porcupine, *Chaetomys subspinosus*. *Canadian J. Zool.* 97(1): 31-41.

Whitaker, Jr, J. O. and U. Roze, 2018. Invertebrates from porcupine (*Erethizon dorsatum*) rock dens from Greene County, Catskill Mountains, New York. *Proc. Indiana Acad. Sci.* 127(2): 124-127. (Published in 2019)

Guo, T.Z., T. Wei, M. Tajerian, J.D. Clark, F. Birklein, A. Goebel, W.W. Li, P. Sahbaie, F.L. Escolano, M. Herrnberger, H.H. Kramer, and W.S. Kingery, 2019. Complex regional pain syndrome patient IgM has pronociceptive effects in the skin and spinal cord of tibia fracture mice. Pain: doi: 10.1097/j.pain.0000000000001765. [Epub ahead of print] PubMed PMID: 31815913.

Tajerian, M. and J.D. Clark, 2019. Spinal matrix metalloproteinase 8 regulates pain after peripheral trauma. *Journal Pain Res.* 12: 1133-1138.

Tajerian, M., S.G. Alvarado, and J.D. Clark, 2019. Differential olfactory bulb methylation and hydroxymethylation are linked to odor location memory bias in injured mice. *Molecular Pain* 15: 1-5.

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**Marcia and Gary Lawson at a Smithsonian Price of Freedom Exhibit event. Gary and others donated a Vietnam War-era Huey helicopter to the exhibit—a testament to all who served in our military.**

### **GARY LAWSON, CLASS OF '66**

was a biology major but soon made a dramatic career change. He earned his JD from St. John's University Law School and an LLM (Master of Laws in taxation) from New York University Law School. Today, Gary practices law in Dallas, Texas, but his career has also taken him to Milwaukee, Chicago, Atlanta, and Boston. Gary represents business owners and

enterprises in buying and selling businesses and in employment-related matters, as well as governmental entities in matters involving governmental law. He has won two cases in two U.S. District courts, two in U.S. Courts of Appeals, and Writs of Certiorari; two different cases were twice denied in Gary's clients favor at the U.S. Supreme Court. Gary has been mentioned in *The New York Times*, *The Wall Street Journal*, *USA Today*, *The Boston Globe*, and other national media. He says, "I have enjoyed doing some amazing things as a lawyer."

Now for the rest of the story. After 9/11, Gary became involved in helping disabled veterans. In 2008, he founded and chaired a nonprofit called Independence Corps, which provides over 30 high-tech mobility devices like the iBOT Mobility System, 25 Track-Chairs, and the Luke Arm to disabled veterans. He also networks in support of suicide prevention for veterans.

Gary helped create and serves on the board of FIRST in Texas, an affiliate of FIRST Robotics, promoting

Science, Technology, Engineering and Mathematics (STEM) education. Gary served for eight years on the board of directors and two years as chairman of Snowball Express, a nonprofit that provides hope at special holiday events for the more than 10,000 children who lost a parent serving in the U.S. Military since 9/11. By order of the Secretary of the Army, Gary was inducted as an honorary member of the 160th Special Operations Aviation Regiment, the "Nightstalkers." In 2018, Gary helped found and still serves on the board of the Tribute to Valor Foundation. The Foundation works to motivate students, especially those interested in STEM, by bringing U.S. Medal of Honor recipients to schools.

### **Do you enjoy reading Alumni Update?**

We want to hear from you!  
Find out how to contact us in the box below.

## **WRITE THE EDITOR WE WANT TO HEAR FROM YOU!**

### **Do you want to tell your fellow alums what you have been doing since graduation?**

Send an email to Prof. Michels at [Corinne.Michels@qc.cuny.edu](mailto:Corinne.Michels@qc.cuny.edu) and include "Biology Alumni Update" in the Subject line of your message.

### **ALUMNI UPDATE**

Be as brief or lengthy as you want. Dr. Michels will maintain a listing of your email address and any other contact information that you provide in your message. If any of our readers wish to contact you, they should ask Dr. Michels in an email and she will forward their message to you. You can respond to them as you like. Please let Dr. Michels know whether you want your message to appear in **ALUMNI UPDATE**. Include the following information:

- Year of graduation
- Your message edited by you as you wish it to appear in print
- Any photos as jpeg files

### **Do you have a comment about what you have been reading in *Biology Currents*?**

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### **ALUMNI SPEAK OUT**

Send an email to Prof. Michels at [Corinne.Michels@qc.cuny.edu](mailto:Corinne.Michels@qc.cuny.edu) and include "Biology Alumni Comments" in the Subject line of your message. We are considering starting a new section entitled "**ALUMNI SPEAK OUT**." We want to know your thoughts about *Biology Currents* or what is happening in the Biology Department. Please let Dr. Michels know whether you want your message to appear in **ALUMNI SPEAK OUT**. Include the following information:

- Year of graduation
- Your message edited by you as you wish it to appear in print

## BIOLOGY ALUMNI FUND Donations FY2019

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In fiscal year 2019, **58** of our alumni donated **\$16,615**. Thank you!

Very special thanks go to Elissa Koff (Class of '60), Michael Gottlieb (Class of '65), and Harris Taylor (Class of '61) for their extraordinary gifts. No matter the amount, your generosity is greatly appreciated and viewed as a vote of confidence in the biology department.

Donations represent unrestricted money that the department uses for educational enrichment programs that focus directly on our students. We support undergraduate student research and travel to scientific conferences, provide supplements to undergraduate student graduation awards (Lancefield Award, Darwin Prize, Colwin Prize, Feigelson Award), and support other student-centered special events. These funds also help defray the expenses

for visiting research scientists who present talks on their science in seminar classes where students can meet and be inspired by an outstanding array of cutting-edge researchers.

If you do not already contribute, please tell us how we can inspire you to do so. We are sincerely interested in your comments and suggestions, which can be emailed to [Corinne.Michels@qc.cuny.edu](mailto:Corinne.Michels@qc.cuny.edu).

### Donors List FY2019

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#### \$5,000

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## JOSÉ D. ANADÓN RETURNS TO SPAIN



**José D. Anadón** has left Queens College to take a position as the Ramón y Cajal Investigator in the Department of Agricultural Sciences and Natural Environment, Zaragoza University, Huesca, Spain. While this is a loss for the Biology Department, it was a great move for Dr. Anadón and his family. Both he and his wife now hold permanent principal investigator positions at the University as heads of their own independent research groups. The move also relocates the Anadóns closer to their families, something that is so important for his young children.

That said, Dr. Anadón tells us that his five years with the Queens College

Biology Department were a “wonderful experience.” He particularly enjoyed teaching at Queens College where he found it “extremely rewarding” to work “with such a diverse student body and with students working so hard. I also found a very rich research collaborative environment, both in the Department and the CUNY Biology Program. I would say that the position at Queens College was perfect for me. We felt happy and sad at the same time when we decided to return to our native Spain.” The Biology Department feels the same, happy for Dr. Anadón and his family but sad for our loss of a wonderful colleague.

### INSPIRED TO DONATE!



If you like what you are seeing in *Biology Currents* and would like to contribute to the Department’s Alumni Fund, you can do so anytime during the year, not just during the College’s fall fund-raising drive.

Here’s how:

**BY MAIL:** Make your check payable to **QUEENS COLLEGE FOUNDATION** and write “Biology Department” in the Memo line.

Send to:  
**Queens College Foundation,**  
Kiely Hall 906, 65-30 Kissena Boulevard,  
Flushing, NY 11367.

Please **DO NOT** send checks directly to Prof. Michels or Dr. Esther Muehlbauer.

**ONLINE:** Use the link (<https://qccommunity.qc.cuny.edu/QueensCollege/DonateNow>). In the section labeled **Donation Information** use the pull-down menu under the title **Designation** and select **Other**. A new line will open in which you can enter **Biology Department**. The link is a fast and secure method of donating.

Either way, you will receive a letter from the Foundation acknowledging your donation, which is tax deductible.

**Thank you for your support.**

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